

CLAIMS

1. (Previously Presented) A method for converting water into fuel, comprising mixing water with ethanol in a certain ratio by weight, heating and evaporating the obtained mixture to obtain a vapor mixture and passing the said vapor mixture through a DC electric field.
2. (Previously Presented) The method for converting water into fuel as claimed in Claim 1, wherein that the water was mixed with the ethanol in a ratio of 4:1 to 1:1 by weight.
3. (Previously Presented) The method for converting water into fuel as claimed in Claim 1, a voltage of the DC electric field is no less than 6V.
4. (Previously Presented) An apparatus for converting water into fuel, comprising mainly an evaporating system and a DC electric field system, wherein the said evaporating system consists of a tank and an evaporator, and the said DC electric field system consists of a riser pipe, a negative electrode fixed in the riser pipe and a positive electrode fixed outside of the riser pipe, in the said evaporating system of the apparatus, a flow control valve is provided between the tank and the evaporator, the evaporator is of an indirect heating type in which a heating pipe (14) heats the mixture of water and ethanol indirectly in the evaporator to obtain the mixed vapor, and said vapor produced by the evaporator is transferred into a vapor reserving pipe through a connecting pipe connected with the evaporator, and the vapor reserving pipe is connected with an outer casing of the positive electrode of the DC electric field system and the riser pipe, in the DC electric field system of this apparatus, the riser pipe is made of an insulating material, the negative electrode is fixed inside the riser pipe and the positive electrode corresponding to the negative electrode is fixed outside, the outer casing is equipped around the positive electrode, an outlet hole for the combustible gas is formed at the top of the riser pipe and is connected with a fuel gas pipe which is connected with a fuel gas collecting pipe, and an exhausting vent is formed at the top of the outer casing of the positive electrode and is connected with an exhaust gas pipe which is connected with an exhaust gas collecting pipe.

5. (Previously Presented) The apparatus for converting water into fuel according to Claim 4, wherein the evaporator is an airtight container through which the heating pipe passes in the center, and the mixture of water and ethanol in the evaporator is separated from the material in the heating pipe.

6. (Previously Presented) The apparatus for converting water into fuel according to Claim 5, wherein the heating pipe of the evaporating system is an exhausting pipe of a heat engine.

7. (Previously Presented) The apparatus for converting water into fuel according to Claim 4, wherein the riser pipe and the negative electrode in the riser pipe and the positive electrode out of the riser pipe (1) in the DC electric field of this apparatus are connected in a tandem manner or a parallel manner or the combined manner of them to construct a combined type DC electric field system, which is connected to the reserving vapor pipe, and the output is connected to the fuel gas collecting pipe via the fuel gas pipe and to the exhaust gas collecting pipe via the exhaust pipe (6).

8. (Previously Presented) The apparatus for converting water into fuel according to Claim 4, wherein the negative electrode in the riser pipe is a tower-like winding with larger underpart and smaller upper part or a strip made of a conductive material, and the positive electrode opposite to the negative electrode is fixed outside of the riser pipe, and is a tube electrode formed by winding a plate or a strip made of a conductive material around the riser pipe.

9. (Previously Presented) The apparatus for converting water into fuel according to Claim 4, wherein the negative electrode in the DC electric field system of said apparatus is a tube electrode made of a conductive material.

REMARKS/ARGUMENTS

The Office Action mailed December 17, 2008 has been received and its contents carefully considered. Applicant has thoroughly reviewed the outstanding Office Action.

Applicant respectfully traverses the election requirement imposed in the Office Action, but provisionally elects with traverse Group I claims 1-3, drawn to a method for converting water into fuel.

Applicant objects to and traverses the election requirement on the grounds that the subject matter of the groups overlap. In addition, the mandatory fields of search for the embodiments are coextensive as shown below.

The Examiner maintains that Groups I and II do not relate to a single general inventive concept and they lack the same or corresponding special technical features. The Examiner also maintains that the particular apparatus recited in Group II is not recited in Group I. Applicants respectfully traverse because the criteria of MPEP § 803 are not met for a proper restriction requirement. There may be a burden, but not a serious burden under MPEP § 803:

There are two criteria for a proper requirement for restriction between patentably distinct inventions:

(A) The invention must be independent (see MPEP § 802.01, § 806.06, § 808.01) or distinct as claimed (see MPEP § 806.05 - § 806.05(j)); and

(B) There would be a serious burden on the examiner if restriction is not required (see MPEP § 803.2, § 808, and § 808.02).

In groups I and II, claims include certain overlapping fields of search including the certain features have to be searched for all groups, thus there should be no serious burden on the Examiner.